



A.D. 1856 N^o 1954.

S P E C I F I C A T I O N

OF

WILLIAM HEAP, DEMUS SHARP, AND
GEORGE KNOWLES.

FURNACES.

L O N D O N :

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE, .

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A.D. 1856 N° 1954.

Furnaces.

(This Invention received Provisional Protection, but notice to proceed with the application for Letters Patent was not given within the time prescribed by the Act.)

PROVISIONAL SPECIFICATION left by William Heap, Demus Sharp, and George Knowles at the Office of the Commissioners of Patents, with their Petition, on the 21st August 1856.

We, WILLIAM HEAP, DEMUS SHARP, and GEORGE KNOWLES, all of Bradford, 5 in the County of York, Engine Tenders, do hereby declare the nature of the said Invention for "**IMPROVEMENTS IN THE CONSTRUCTION OF FURNACES FOR ECONOMIZING FUEL AND PREVENTING SMOKE,**" to be as follows:—

This Invention consists in employing two distinct and separate fires instead of one fire only, as commonly practised in the furnaces of boilers, and more 10 particularly Cornish boilers, in which the furnace thereof is placed in an opening made through the boiler in the direction of its length.

In adapting these improvements to a Cornish boiler, we construct a partition down the centre of the aforesaid opening, through which the water in the boiler may circulate, said opening being in fact a part of the boiler; we also 15 form an opening through each side of the boiler, said openings communicating respectively with a flue surrounding the boiler, and communicating with another flue beneath by means of dampers; that is to say, we employ two dampers for shutting off the communication with one or other, or, if necessary, both of the furnace fires and their respective flues. Thus it will be seen that

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by opening one of such dampers we cause the draught and smoke to pass from one furnace fire over the other, and from thence into the chimney, and by these means we economize fuel, by securing the greater portion of the heat therefrom, and at the same time prevent smoke.

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